

CLAIMS:

1. A data access system including:
a network management server receiving communication data from a data source;
a transmission cell receiving said communication data from said network management server, spread-spectrum encoding said data, and transmitting said spread-spectrum encoded data;
and
at least one Consumer Premises Equipment (CPE) receiving and decoding said spread-spectrum encoded data,
wherein said transmission cell is partitioned into sectors and wherein the frequency of operation of at least one sector is dynamically configurable.
2. The data access system of claim 1 wherein said data source is the internet.
3. The data access system of claim 1 wherein said transmission cell is segmented into three sectors, each sector operating at a different frequency.
4. The data access system of claim 3 wherein each of said sectors is dynamically configurable.
5. The data access system of claim 1 wherein said CPE determines the signal to noise ratio (SNR) of received data.

6. The data access system of claim 5 wherein said transmission cell periodically polls said at least on CPE to retrieve the SNR.

7. The data access system of claim 6 wherein the SNRs of each CPE in a sector of said transmission cell are averaged and compared to a threshold to determine when the sector is affected by interference.

8. The data access system of claim 7 wherein said sector begins using a new frequency of operation in response to said threshold determination.

9. The data access system of claim 8 wherein said transmission cell is segmented into three sectors, each sector operating at a different frequency, and wherein said new frequency of operation is part of a predetermined revised frequency plan for each of said sectors in said transmission cell.

10. The data access system of claim 9 further including a plurality of transmission cells, and wherein said new frequency of operation is part of a predetermined revised frequency plan for a plurality of said transmission cells.

11. A data access system including:
a network management server receiving communication data from a data source;

a transmission cell receiving said communication data from said network management server, spread-spectrum encoding said data, and transmitting said spread-spectrum encoded data; and

at least one Consumer Premises Equipment (CPE) receiving and decoding said spread-spectrum encoded data,

wherein said network management server provides remote management of said at least one CPE.

12. The data access system of claim 11 wherein said network management server adjust a bandwidth allocation to said CPE.

13. The data access system of claim 11 wherein said network management server configures the IP address for said CPE.

14. The data access system of claim 11 wherein said network management server interfaces with payment information linked to a CPE to determine access control for said CPE.

15. The data access system of claim 11 wherein said network management server additionally provides management of said transmission cell.

16. The data access system of claim 15 wherein said transmission cell includes a plurality of sectors and said network management server alters the frequency of operation of at least one sector.

17. The data access system of claim 15 further including a plurality of transmission cells, a plurality of said transmission cells having a plurality of sectors, and wherein said network management server alters the frequency of operation of at least one sector of a plurality of said transmission cells.

18. A self-provisioning Consumer Premises Equipment (CPE) of a data access system, said CPE including:

a wireless transceiver receiving a spread spectrum encoded data signal from a transmission cell of a data access system and transmitting a spread spectrum encoded data signal to a transmission cell of a data access system;

a power amplifier performing automatic gain control (AGC) to control the amplitude of said signal transmitted to said transmission cell;

wherein said CPE is self-provisioning to establish communication with said data access system at an initial activation.

19. The CPE of claim 18 wherein said CPE is in remote communication with a network management device and said network management device manages CPE.

20. The CPE of claim 18 where in said transmission cell includes a plurality of sectors and wherein said CPE identifies which sector it occupies during self-provisioning.